

## **ABSTRACT OF THE DISCLOSURE**

The present invention relates to a linear reciprocating driving apparatus. It includes a  
5 sliding assembly, a slave chain-engaging and reversing mechanism, a flying wheel, a  
driven sprocket, a driving chain, and a guide column. The sliding assembly is arranged  
on the framework of the propulsion apparatus to be activated by a rider. Also there is  
provided a slave chain-engaging and reversing mechanics with compensation means.  
The propulsion apparatus can obtain satisfying results and high efficiency. The  
10 invention can be applied to various manually powered vehicle and watercraft. They  
are mainly used for communication to substitute walking and physical exercise.